

Anasa armigera Say. Boston, Massachusetts, 24 Sept., 1914; 13 Oct., 1915 (Parshley).

I believe that these are the first New England records for this species. The two specimens were taken at almost the same spot in two successive years. The individual captured in 1914 differs in some details from typical western specimens in my collection, but the other is so distinctly intermediate as to forbid even racial separation from typical *armigera*.

PENTATOMIDAE.

Zicrona caerulea Linn. Newbury Neck (near Surrey), Maine, 22-24 June, 1904 (F. A. Eddy).

This cosmopolite is widely distributed in the West, but there is only one other record of its occurrence in New England, (Mt. Washington, New Hampshire). I have compared the specimen with others in my collection from the Caucasus and Java and note but slight differences apart from size.

A New Species of Heterothrips (Thysanoptera) from Eastern United States.

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Heterothrips vitis sp. nov.

1913—*Heterothrips arisaemae* Morgan, Proc. U. S. Nat. Mus., Vol. 46, p. 44. (Appomatox, Virginia; on wild grape). (A misidentification, nec Hood, 1908).

Female (macropterous).—Length about 1 mm. Color dark blackish brown, with tarsi and distal ends of all tibiae very pale yellow; basal portions of antennal segments 3 and 4 more or less yellowish, the remainder of antenna grayish brown.

Head about 1.6 times as long as median dorsal length and about 0.7 as long as prothorax, widest near base, cheeks tapering roundly anteriorly; surface closely transversely striate and with a few minute spines, impressed in the region of the anterior ocellus; frontal costa with deep, U-shaped emargination; ocellar area not delimited by chitinous lines. Eyes setose, about two-thirds as long as head, slightly wider than their dorsal interval, not bounded behind by a chitinous line. Ocelli of posterior pair twice the diameter of anterior ocellus, about half as wide as their interval. Antennae about 2.8 times as long as head; segment 3 more or less conical and about 2.8 times as long as

wide; 4 much shorter than 3, about twice as long as wide, sides broadly rounded in basal fourth, nearly straight beyond; 5-8 more or less barrel shaped, with sense cones, 5 narrowed at base; 9 about three times as long as wide, obliquely truncate at base, its axis tipped more or less outward from that of rest of antenna; segment 1 slightly lighter than head, 2 about concolorous with it, very slightly, if at all, paler at apex; 3 and 4 pale yellowish, with orange pigment apically, 3 narrowly and 4 widely, darkened with gray at apex; 5-9 grayish brown, 5 paler sub-basally.

Prothorax about 1.4 times as long as head and about 1.6 times as wide as long, broader behind, sides and posterior margin rounded, anterior margin nearly straight; notum with a few inconspicuous bristles, its surface closely transversely striate with anastomosing lines. Wings of fore pair nearly half as wide at middle as near base, the greatest sub-basal width (exclusive of scale), about one-ninth the length of wing; costal margin, anterior vein, and posterior vein with about 30, 26, and 16 spines, respectively.

Abdomen stout, pubescence dense, disposed on close, anastomosing striae; posterior margins of abdominal tergites 1-5 fringed at sides with numerous slender spines which are not at all coalesced at base to form plates or scales; tergites 6-8 and sternites 2-6 with their entire posterior margins similarly produced.

Measurements of holotype: Head, length 0.090 mm., width 0.144 mm.; prothorax, length 0.126 mm., width 0.206 mm.; prothorax, width 0.269 mm.; fore-wing, length 0.780 mm., width near base 0.084 mm.; width at middle 0.045 mm.; abdomen, width 0.319 mm.

Antennal segments:	1	2	3	4	5	6	7	8	9
Length in microns	20	35	61	44	32	29	14	15	14
Width in microns	28	25	22	21	18	15	12	10	5
- Total length of antenna, 0.264 mm.									

Male (macropterous).—Length about .7 mm. Color and structure essentially as in female. Tergite of abdominal segment 9 with a pair of heavy, fingerlike, chitinous processes between the usual two pairs of long bristles behind middle.

Measurements of allotype: Head, length 0.076 mm., width 0.125 mm.; prothorax, length 0.102 mm., width (inclusive of coxae) 0.172 mm.; pterothorax, width 0.209 mm.; fore-wing, length 0.552 mm., width near base 0.072 mm., width at middle 0.039 mm.; abdomen, width 0.166 mm.

Antennal segments:	1	2	3	4	5	6	7	8	9
Length in microns	18	33	53	37	32	29	14	14	11
Width in microns	24	21	19	18	16	14	11	9	5
Total length of antenna, 0.241 mm.									

Described from 49 females and 15 males, as follows:

Maryland: Plummer Island (type locality), May 23, 1915 (W. L. McAtee, L. O. Jackson, J. D. Hood), on flowers of wild grape, 10 females, 3 males; Great Falls, May 23, 1915 (W. L. McAtee, L. O. Jackson, J. D. Hood), on flowers of wild grape, *Smilax* and *Rhus toxicodendron*, 31 females, 8 males.

District of Columbia: Washington, June 6, 1915 (V. A. Lawrence and J. D. Hood), on flowers of wild grape, 7 females, 2 males.

Virginia: Great Falls, May 19, 1915 (L. O. Jackson), on flowers of wild grape, 1 female, 2 males.

The *types* are now in my collection.

The specimens here described are very uniform in most of the characters used in the differentiation of the species. Other individuals, particularly males, taken at the same time and possibly in company with them, exhibit variations in the proportionate lengths of the antennal segments, the sculpture of the pronotum, and the abdominal armature; but more material of these forms is needed before their proper status can be decided.

This species is allied by the simple, spinose fringe of the lateral, posterior margins of the abdominal tergites, to *minor*, *sericatus* and *analisis*. The transversely striate pronotum separates it readily from *minor*, which was described from Panama; and *sericatus*, a Porto Rican species, differs radically in that the legs of the female are yellow and the body of the male orange yellow. Its affinities, then, are with *analisis*, known only from Maryland. This is the only species of the genus with which it agrees in the male sex in having the ninth abdominal tergite produced in a pair of converging, fringe-like processes. In *analisis*, however, the third antennal segment is very long, being about 3.6 times as long as its greatest width; the middle portion of the antenna, from segments 3-5, inclusive, is a very pale grayish yellow; and the mid and hind tibiae are annulate at both ends with pale yellow.